Comp. Biochem. Physiol. Vol. 154A No. 4 pp. I–V, 2009

ELSEVIER

CONTENTS OF VOLUME 154

Vol. 154A, No. 1

Reviews

R.G. Lentle, P.W.M. Janssen and I.D. Hume	1	The roles of filtration and expression in the processing of digesta with high solid phase content
F. Garofalo, D. Pellegrino, D. Amelio and B. Tota	10	The Antarctic hemoglobinless icefish, fifty five years later: A unique cardiocirculatory interplay of disaptation and phenotypic plasticity

General papers

H.-y. Liu, L.-q. Pan and D.-b. Zheng	29	Effects of injection of biogenic amines on expression of gill related ion transporter mRNA and α-subunit protein in *Litopenaeus vannamei*
J.M. Guzmán, M.J. Bayarri, J. Ramos, Y. Zohar, C. Sarasquete and E.L. Mañanós	37	Follicle stimulating hormone (FSH) and luteinizing hormone (LH) gene expression during larval development in Senegalese sole (*Solea senegalensis*)
D.P. Garçon, D.C. Masui, F.L.M. Mantelatto, R.P.M. Furriel, J.C. McNamara and F.A. Leone	44	Hemolymph ionic regulation and adjustments in gill (Na^+, K^+)-ATPase activity during salinity acclimation in the swimming crab *Callinectes ornatus* (Decapoda, Brachyura)
R.M.G. Wells and B.J. Dunphy	56	Potential impact of metabolic acidosis on the fixed-acid Bohr effect in snapper (*Pagrus auratus*) following angling stress
J. Eom, Y.R. Jung and D. Park	61	F-series prostaglandin function as sex pheromones in the Korean salamander, *Hynobius leechii*
B.B. Rees, Y.G. Figueroa, T.E. Wiese, B.S. Beckman and P.M. Schulte	70	A novel hypoxia-response element in the lactate dehydrogenase-B gene of the killifish *Fundulus heteroclitus*
M. Zeman, K. Szántóová and I. Herichová	78	Ontogeny of circadian oscillations in the heart and liver in chicken
Z.-J. Zhao and J. Cao	84	Plasticity in energy budget and behavior in Swiss mice and striped hamsters under stochastic food deprivation and refeeding
S. Schmidt, P.C. Withers and C.E. Cooper	92	Metabolic, ventilatory and hygric physiology of the chuditch (*Dasyurus geoffroii*; Marsupialia, Dasyuridae)
J.L. Ripley	98	Osmoregulatory role of the paternal brood pouch for two *Syngnathus* species
G. Benga, B.E. Chapman and P.W. Kuchel	105	Comparative NMR studies of diffusional water permeability of red blood cells from different species: XV. Agile wallaby (*Macropus agilis*), red-necked wallaby (*Macropus rufogriseus*) and Goodfellow's tree kangaroo (*Dendrolagus goodfellowi*)
I. Pirozzi and M.A. Booth	110	The effect of temperature and body weight on the routine metabolic rate and postprandial metabolic response in mulloway, *Argyrosomus japonicus*
T.B. Henry, J.T. McPherson, E.D. Rogers, T.P. Heah, S.A. Hawkins, A.C. Layton and G.S. Sayler	119	Changes in the relative expression pattern of multiple vitellogenin genes in adult male and larval zebrafish exposed to exogenous estrogens
C.-J. Li, Q.-W. Wei, L. Zhou, H. Cao, Y. Zhang and J.-F. Gui	127	Molecular and expression characterization of two somatostatin genes in the Chinese sturgeon, *Acipenser sinensis*

Contents of volume

S. Liu, L. Wang, N. Wang, Y. Wang, H. Shi and H. Li — 135 Oleate induces transdifferentiation of chicken fibroblasts into adipocyte-like cells

H. Kudo, Y. Doi, H. Ueda and M. Kaeriyama — 142 Molecular characterization and histochemical demonstration of salmon olfactory marker protein in the olfactory epithelium of lacustrine sockeye salmon (*Oncorhynchus nerka*)

I. Lechner, P. Barboza, W. Collins, D. Günther, B. Hattendorf, J. Hummel and M. Clauss — 151 No 'bypass' in adult ruminants: Passage of fluid ingested vs. fluid inserted into the rumen in fistulated muskoxen (*Ovibos moschatus*), reindeer (*Rangifer tarandus*) and moose (*Alces alces*)

A. Pérez-Jiménez, G. Cardenete, A.E. Morales, A. García-Alcázar, E. Abellán and M.C. Hidalgo — 157 Digestive enzymatic profile of *Dentex dentex* and response to different dietary formulations

M.D. McCue, O. Amitai, I. Khozin-Goldberg, S.R. McWilliams and B. Pinshow — 165 Effect of dietary fatty acid composition on fatty acid profiles of polar and neutral lipid tissue fractions in zebra finches, *Taeniopygia guttata*

I Announcement: 26th ESCPBnew Congress, Innsbruck, Austria, September 6–10th, 2009

Vol. 154A, No. 2

Reviews

S. Peron, M.A. Zordan, A. Magnabosco, C. Reggiani and A. Megighian — 173 From action potential to contraction: Neural control and excitation–contraction coupling in larval muscles of *Drosophila*

R.E. Antwis and R.K. Browne — 184 Ultraviolet radiation and Vitamin D_3 in amphibian health, behaviour, diet and conservation

General papers

S.A. Orlofske and W.A. Hopkins — 191 Energetics of metamorphic climax in the pickerel frog (*Lithobates palustris*)

A. Saera-Vila, J.A. Calduch-Giner, P. Prunet and J. Pérez-Sánchez — 197 Dynamics of liver GH/IGF axis and selected stress markers in juvenile gilthead sea bream (*Sparus aurata*) exposed to acute confinement: Differential stress response of growth hormone receptors

A.C. Coleone, K.A.A. Torres, E.C. Carnio, L.H. Gargaglioni, M. Macari, R.L. Furlan and K.C. Bícego — 204 Role of brain nitric oxide in the thermoregulation of broiler chicks

J.P. Wall and J.F. Cockrem — 211 Effects of corticosterone treatment on responses to fasting in Japanese quail

A. Murai, M. Furuse, K. Kitaguchi, K. Kusumoto, Y. Nakanishi, M. Kobayashi and F. Horio — 216 Characterization of critical factors influencing gene expression of two types of fatty acid-binding proteins (L-FABP and Lb-FABP) in the liver of birds

M.A. Micheli-Campbell, H.A. Campbell, A.L. Kalinin and F.T. Rantin — 224 The relationship between O_2 chemoreceptors, cardio-respiratory reflex and hypoxia tolerance in the neotropical fish *Hoplias lacerdae*

A. Dupont-Prinet, G. Claireaux and D.J. McKenzie — 233 Effects of feeding and hypoxia on cardiac performance and gastrointestinal blood flow during critical speed swimming in the sea bass *Dicentrarchus labrax*

G. Levy, Y. Gothilf and G. Degani — 241 Brain gonadotropin releasing hormone3 expression variation during oogenesis and sexual behavior and its effect on pituitary hormonal expression in the blue gourami

L.K. Davis, B.K. Fox, C. Lim, N. Hiramatsu, C.V. Sullivan, T. Hirano and E.G. Grau — 249 Induction of vitellogenin production in male tilapia (*Oreochromis mossambicus*) by commercial fish diets

M. Jaroszewska, B.-J. Lee, K. Dabrowski, S. Czesny, J. Rinchard, P. Trzeciak and B. Wilczyńska — 255 Effects of vitamin B_1 (thiamine) deficiency in lake trout (Salvelinus namaycush) alevins at hatching stage

R. Yanagie, K.M. Lee, S. Watanabe and T. Kaneko — 263 Ontogenic change in tissue osmolality and developmental sequence of mitochondria-rich cells in Mozambique tilapia developing in freshwater

N. Yaqoob, M. Holotta, C. Prem, R. Kopp and T. Schwerte — 270 Ontogenetic development of erythropoiesis can be studied non-invasively in *GATA-1:DsRed* transgenic zebrafish

Vol. 154A, No. 3

Review

J.R. Rochester and J.R. Millam — 279 Phytoestrogens and avian reproduction: Exploring the evolution and function of phytoestrogens and possible role of plant compounds in the breeding ecology of wild birds

General papers

S. Linton, L. Barrow, C. Davies and L. Harman — 289 Potential endocrine disruption of ovary synthesis in the Christmas Island red crab *Gecarcoidea natalis* by the insecticide pyriproxyfen

P.P. Perissinotti, C.D. Antenucci, R. Zenuto and F. Luna — 298 Effect of diet quality and soil hardness on metabolic rate in the subterranean rodent *Ctenomys talarum*

S.Y. Su, M.V. Dodson, X.B. Li, Q.F. Li, H.W. Wang and Z. Xie — 308 The effects of dietary betaine supplementation on fatty liver performance, serum parameters, histological changes, methylation status and the mRNA expression level of Spot14α in Landes goose fatty liver

Y. Ma, S. Wu, B. Rasley and L. Duffy — 315 Adaptive response of brain tissue oxygenation to environmental hypoxia in non-sedated, non-anesthetized arctic ground squirrels

M. Hathaway, J. Hatle, S. Li, X. Ding, T. Barry, F. Hong, H. Wood and D. Borst — 323 Characterization of hexamerin proteins and their mRNAs in the adult lubber grasshopper: The effects of nutrition and juvenile hormone on their levels

S. Chiken, K. Kuwasawa and M. Kurokawa — 333 A neural analysis of avoidance conditioning with the feeding attractant glycine in *Pleurobranchaea japonica*

F. Ladich and L.E. Wysocki — 341 Does speaker presentation affect auditory evoked potential thresholds in goldfish?

T.J. Pandolfo, W.G. Cope and C. Arellano — 347 Heart rate as a sublethal indicator of thermal stress in juvenile freshwater mussels

E. Motohashi, S. Hasegawa, K. Mishiro and H. Ando — 353 Osmoregulatory responses of expression of vasotocin, isotocin, prolactin and growth hormone genes following hypoosmotic challenge in a stenohaline marine teleost, tiger puffer (*Takifugu rubripes*)

S.F. Chew, Y.Y.M. Tng, N.L.J. Wee, J.M. Wilson and Y.K. Ip — 360 Nitrogen metabolism and branchial osmoregulatory acclimation in the juvenile marble goby, *Oxyeleotris marmorata*, exposed to seawater

K. Sato, T. Yonemura, H. Ishii, M. Toyomizu, T. Kamada and Y. Akiba — 370 Role of peroxisome proliferator-activated receptor β/δ in chicken adipogenesis

M. Clauss, C. Nunn, J. Fritz, and J. Hummel — 376 Evidence for a tradeoff between retention time and chewing efficiency in large mammalian herbivores

B. Ujvari, J.F. Wallman, T. Madsen, M. Whelan and A.J. Hulbert — 383 Experimental studies of blowfly (*Calliphora stygia*) longevity: A little dietary fat is beneficial but too much is detrimental

G. Folguera, D.A. Bastías and F. Bozinovic — 389 Impact of experimental thermal amplitude on ectotherm performance: Adaptation to climate change variability?

T.-S. Tsai, H.-J. Lee and M.-C. Tu — 394 Bioenergetic modeling reveals that Chinese green tree vipers select postprandial temperatures in laboratory thermal gradients that maximize net energy intake

J.A. Shelby-Walker, C.K. Ward and M.T. Mendonça — 401 Reproductive parameters in female yellow-blotched map turtles (*Graptemys flavimaculata*) from a historically contaminated site vs. a reference site

A.M. Gutiérrez, G.R. Reboredo, S.M. Mosca and A. Catalá	409	High resistance to lipid peroxidation of bird heart mitochondria and microsomes: Effects of mass and maximum lifespan
L. Vargas-Chacoff, F.J. Arjona, S. Polakof, M.P.M. del Río, J.L. Soengas and J.M. Mancera	417	Interactive effects of environmental salinity and temperature on metabolic responses of gilthead sea bream *Sparus aurata*
J.A. López-Sánchez, A.N. Maeda-Martínez, R.P. Croll and H. Acosta-Salmón	425	Monoamine fluctuations during the reproductive cycle of the Pacific lion's paw scallop *Nodipecten subnodosus*

Vol. 154A, No. 4

General papers

C.A. Ruiz-Feria, Y. Yang, D.B. Thomason, J. White, G. Su and H. Nishimura	429	Pulse wave velocity and age- and gender-dependent aortic wall hardening in fowl
P.J. Allen, M.A.H. Webb, E. Cureton, R.M. Bruch, C.C. Barth, S.J. Peake and W.G. Anderson	437	Calcium regulation in wild populations of a freshwater cartilaginous fish, the lake sturgeon *Acipenser fulvescens*
B.C. Small, S.M.A. Quiniou and H. Kaiya	451	Sequence, genomic organization and expression of two channel catfish, *Ictalurus punctatus*, ghrelin receptors
P.R. Biga and J. Meyer	465	Growth hormone differentially regulates growth and growth-related gene expression in closely related fish species
J.E. Je, S.J. Ahn, N.Y. Kim, J.S. Seo, M.-S. Kim, N.G. Park, J.K. Kim, J.K. Chung and H.H. Lee	474	Molecular cloning, expression analysis and enzymatic characterization of cathepsin K from olive flounder (*Paralichthys olivaceus*)
L. Mendoza-Vargas, H. Solís-Chagoyán, G. Benítez-King and B. Fuentes-Pardo	486	MT_2-like melatonin receptor modulates amplitude receptor potential in visual cells of crayfish during a 24-hour cycle
S. Kostelanetz, M.J. Dickens and L.M. Romero	493	Combined effects of molt and chronic stress on heart rate, heart rate variability, and glucocorticoid physiology in European Starlings
P. Sabat, G. Cavieres, C. Veloso, M. Canals and F. Bozinovic	502	Intraspecific basal metabolic rate varies with trophic level in rufous-collared sparrows
J.C. Coleman and C.T. Downs	508	Variation in urine concentrating ability and water balance of the Black-tailed Tree Rat *Thallomys nigricauda*, along an aridity gradient
D. Hauton, A.M. Coney and S. Egginton	514	Both substrate availability and utilisation contribute to the defence of core temperature in response to acute cold
G. Mitchell and J.D. Skinner	523	An allometric analysis of the giraffe cardiovascular system
M. Okuliarová, P. Škrobánek and M. Zeman	530	Variability of yolk testosterone concentrations during the reproductive cycle of Japanese quail
L.S. Babonis, K.A. Hyndman, H.B. Lillywhite and D.H. Evans	535	Immunolocalization of Na^+/K^+–ATPase and $Na^+/K^+/2Cl^-$ cotransporter in the tubular epithelia of sea snake salt glands
L.G. Riley Jr., A.P. Walker, C.P. Dorough, S.E. Schwandt and E.G. Grau	541	Glucose regulates ghrelin, neuropeptide Y, and the GH/IGF-I axis in the tilapia, *Oreochromis mossambicus*
Y. Luo and X. Xie	547	Effects of body lipid content on the resting metabolic rate and postprandial metabolic response in the southern catfish *Silurus meridionalis*
M. Scantlebury, U. Shanas, K. Or-Chen and A. Haim	551	Osmoregulatory traits of broad-toothed field mouse (*Apodemus mystacinus*) populations from different habitats
S.M. Kayes, R.L. Cramp and C.E. Franklin	557	Metabolic depression during aestivation in *Cyclorana alboguttata*
K. Præbel, B. Hunt, L.H. Hunt and A.L. DeVries	564	The presence and quantification of splenic ice in the McMurdo Sound Notothenioid fish, *Pagothenia borchgrevinki* (Boulenger, 1902)

T.R. Nash, E.E. Ruppert and J.M. Colacino 570 The absorption efficiency and respiration rate of the Florida Lancelet, *Branchiostoma floridae*

I Contents of Volume 154

VI Subject Index

IX Author Index

SUBJECT INDEX

Vol. 154A, Nos. 1–4

Absorption efficiency, 570
Acipenser, 437
Adaptation, 389
Adipocyte-like cells, 135
Adipogenesis, 370
Adsorption-inhibition, 564
AEP recording evaluation, 341
Aerobic exercise, 233
Aestivation, 557
Allometric, 409
Allometry, 523
Altitude, 389
Ammonium excretion, 44
Amphibian, 184, 191, 557
Amphioxus, 570
Amylase, 157
Antarctica, 10
Antifreeze glycoprotein, 564
Antifreeze potentiating protein, 564
aP2, 370
Aquaculture, 570
Aquaporins, 105
Arctic ground squirrels, 315
Aridity, 502
Aridity gradient, 508
Arterial wall stiffness, 429
ATP, 44
Auditory threshold determination, 341
Aversive response, 333
Avian, 279

Basal metabolic rate, 92
Behavior, 84
Betaine, 308
Bioassay, 279
Biogenic amine, 29
Biological rhythms, 78
Birds, 409
Bivalves, 425
Blood-O_2 affinity, 56
Blowfly, 383
Blue gourami, 241
Bmal1, 78
BMR, 502
Body lipid content, 547
Body temperature, 92
Brain oxygenation, 315
Brain temperature, 315
Brain tissue O_2 partial pressure, 315
Brood pouch, 98
Bypass, 151

Calcitriol, 184
Calcium, 437
Callinectes ornatus, 44
Calliphora stygia, 383
Cardiac hypertrophy, 429
Cardiac output, 233
Cardiorespiratory control, 224
Cartilaginous, 437
Catfish, 451
Cathepsin K, 474
cDNA, 323
cDNA cloning, 474
Cell culture, 70
Central nervous system, 204
Characiformes, 224
Chicken, 78, 216, 370
Chicken fibroblasts, 135
Chicken myoblasts, 135
Chinese sturgeon, 127
Climatic variability, 389
Cloning, 142
Cold acclimation, 514
Collagenase, 474
Conditioning, 333
Conductance, 92
Conservation, 184
Contraction, 173
Coprophagy, 298
Corticosterone, 211, 493
Cortisol, 197
Crab, 44
Crayfish, 486
Ctenomys, 298
Cyclorana alboguttata, 557
Cysteine protease, 474
Cytochrome P450 1A1, 197

Danio rerio, 119
Denervation, 224
Dentex dentex, 157
Development, 216, 263
Diet, 323, 502
Diet fat, 383
Digestion, 376
Digestive efficiency, 298
Digestive enzyme, 157
Dopamine, 425
Down-regulation, 557
Drosophila, 173
DsRed, 270

Early development, 37
Early mortality syndrome (EMS), 255
Elastin module, 429
Electro-olfactogram (EOG), 61
Embryo, 78
Embryonic development, 98
Endocrine disruption, 119, 279, 401
Endocrinology, 289
Energetics, 110, 191
Energy budget, 84
Energy regulation, 493
Environmental challenge, 551
Environmental toxicology, 289
Erythropoiesis, 270
Estradiol, 437
Estrogen, 119, 249
Evaporative water loss, 92
Evolution, 127, 279, 551
Excitation, 173
Expression, 1, 451
External fertilization, 61

Fasting, 211
Fat body, 323
Fatty acid, 514
Fatty acid methyl ester, 165
Fatty acids, 409
Feeding, 333
Feeding frequency, 394
Feeding stimulation, 216
Filtration, 1
Fish, 56, 224
Fish diet, 249
Fish nutrition, 157
Fishmeal, 249
Food deprivation, 84
Food intake, 211
Forensic entomology, 383
Free amino acids, 360
Freeze avoidance, 564
Freshwater mussel, 347
FSH, 37
Fuel, 417

Gallus domestica, 429
Gas chromatography, 165
Gastrointestinal blood flow, 233
GATA-1, 270
Gene expression, 70, 127, 216
Gene organization, 451
Ghrelin, 451, 541
Ghrelin receptor, 451
Giant *danio*, 465
Gill microsomes, 44
Giraffes, 523
Glucose, 56, 78, 541
Glucose regulated protein 75, 197
Glycerol-3-phosphate dehydrogenase, 370
Glycine, 333

doi:10.1016/S1095-6433(09)01110-6

GnRH, 241
Goldfish, 341
Gonadotropin, 37
Graptemys flavimaculata, 401
Growth hormone, 353, 541
Growth hormone secretagogue-receptor, 451

Haemoglobin, 56
Health, 184
Heart, 10, 78, 409
Heart anatomy, 523
Heart function, 523
Heart rate, 347
Heat stress, 204
Hemoglobin, 10
Hemolymph ions, 44
Hemolymph protein, 323
Herbivory, 376
Hexamerins, 323
Histology, 535
Histopathology, 255
HPLC, 425
Hynobius leechii, 61
Hypertension, 429, 523
Hypoxia, 10, 233, 270, 315
Hypoxia-inducible factor, 70

Ice, 564
Icefish, 10
Immunocytochemistry, 142
Immunohistochemistry, 535
Implanted electrode, 333
In situ hybridization, 142
Insulin-like growth factor I, 465
Insulin-like growth factor-I, 541
Intake, 151
Ion regulation, 437
Ion transfer, 98
Isotocin, 353
Isotopic, 502

Japanese quail, 211, 530

L-NAME, 204
Lactate, 56
Lactate dehydrogenase, 70
Lake trout, 255
Lancelet, 570
Land crabs, 289
Landes geese, 308
Larvae, 37
Larval muscle, 173
LC-MS/MS, 61
LH, 37
Lifespan, 383
Light stimulus, 333
Lipase, 157
Lipid metabolism, 165
Lipid peroxidation, 409
Lipopolysaccharide, 474
Liquid digesta, 1
Litopenaeus vannamei, 29
Liver basic type FABP, 216
Liver type FABP, 216
Liver weight, 308
Longevity, 383
Lubber grasshopper, 323

Macronutrients, 157
Marsupial, 92, 105
Mastication, 376
Maternal effects, 530
Meal size, 394
Medial hypertrophy, 429
Melatonin, 78
Metabolic process, 417
Metabolic rate, 298, 394, 570
Metabolic scaling, 110
Metabolism, 376, 514
Metamorphosis, 191
Methyl farnesoate, 289
Methylation, 308
Microsomes, 409
Mitochondria, 409
Mitochondria-rich cell, 263
Molt, 493
Molt rate, 493
Morphology, 1, 557
Mozambique tilapia, 263
mRNA, 29
MT_2 melatonin-receptor circadian rhythm, 486
Mulloway, 110
Multiple regressions, 394
Mummichog, 70
Myoglobin, 10
Myostatin, 465

Na^+/K^+-ATPase, 29, 263, 353, 360, 535
(Na^+, K^+)-ATPase, 44
$Na^+:K^+:2Cl^-$ cotransporter, 360
$Na^+/K^+/2Cl^-$ cotransporter, 535
NaCN, 224
Neointimal plaque, 429
Neurohypophysial hormone, 353
Neuropeptide Y, 541
Neurotransmitter Electrochemical detector, 425
Nitrate, 204
Nitric oxide, 10
Nitrite, 10, 204
Norepinephrine, 425
Normoxia, 233
Notothenioidei, 564
Notothenioids, 10
Nuclear magnetic resonance, 105
Nutritional metabolic bone disease, 184

O_2 consumption, 315
Octodontidae, 298
Oleate, 135
Olfactory marker protein, 142
Olfactory receptor neuron, 142
Olive flounder (*Paralichthys olivaceus*), 474
Omega-3 PUFA, 165
Ontogeny, 37
Oogenesis, 289
Organ size, 557
Osmolality, 44, 263, 508
Osmoregulation, 98, 353, 360, 535
Ovary synthesis, 289
Oxyeleotris marmorata, 360
Oxygen, 70
Oxygen consumption, 191, 547, 557

p-Chloromercuribenzene sulfonate, 105
p-Chloromercuribenzoate, 105
Pacific salmon, 142
Parasympathetic nervous system, 493
Particulate digesta, 1
Passage, 151
Passerine birds, 165
PCBs, 401
Per2, 78
Performance, 389
Phenotypic flexibility, 508
Pheromone, 61
Phosphate, 437
Phospholipids, 165
Photoperiod, 551
Photoreceptors, 486
Phylogeny, 224
Phytoestrogen, 279
Plasticity, 84
Pleurobranchaea, 333
Postprandial oxygen consumption, 110
PPARβ/δ, 370
PPARγ, 370
Prolactin, 353
Prostaglandins, 61
Protease, 157
Puffer, 353
Pulp mill, 401
Pulse wave velocity, 429
Pyriproxyfen, 289

Quail, 216

Rate and efficiency, 394
Receptor potential, 486
Red blood cell, 105
Refeeding, 84
Relative medullary thickness, 508
Relative water economy, 92
Reproduction, 241, 279, 401, 437
Reproductive cycle, 530
Reptile, 401
Respiration, 191, 570
Retention, 376
Reticular groove, 151
Rodent, 551
Root effect, 56
Ruminant, 151
Rumination, 376

Salamander, 61
Salinity, 417, 551

Salinity acclimation, 44
Saliva, 151
Salt gland, 535
SDA, 110
Sea bass, 233
Sea snake, 535
Seawater acclimation, 360
Senegalese sole, 37
Sequence, 451
Serotonin, 425
Shrimp, 29
Silurus meridionalis, 547
Solea senegalensis, 37
Somatostatin, 127
Sparus aurata, 417
Specific dynamic action, 110, 233, 394, 547
Spleen, 564
Spot14α, 308
Stratification, 151
Stressor, 211
Striped hamsters, 84
Sturgeon, 437
Subterranean rodent, 298
Swiss mice, 84
Sympathetic nervous system, 493
Syngnathus floridae, 98
Syngnathus fuscus, 98

Tadpole, 191
TCDD, 401
Teleost, 70
Teleostei, 142
Temperature, 347, 417
Thermal amplitude, 389
Thermal stress, 298, 347
Thermoregulation, 551
Thiamine, 255
Threatened species, 401
Tilapia, 249, 541
Transdifferentiation, 135
Triacylglycerols, 165
Tritiated water, 508
Trophic level, 502
Tuco-tuco, 298
Tumour necrosis factor-α, 197

Unionidae, 347
Unsaturation index, 165
Urine, 551
Urine concentrating ability, 508
Utilisation, 514
UV, 184
UV-B, 184

Vacuolar-type H/-ATPase, 29
Variability, 341
Vasculature, 10
Vasotocin, 353
Ventilation, 92, 315
Vitamin D_3, 184
Vitellogenin, 119, 249

Water channel protein, 105
Water transport, 105
Water turnover rate, 508
Western blot, 535
Withdrawal responses, 333

Xenoestrogen, 279

Yolk-sac membrane, 263
Yolk testosterone, 530

Zebrafish, 119, 270, 465
Zonotrichia capensis, 502

AUTHOR INDEX

Vol. 154A, Nos. 1–4

Abellán, E., 157
Acosta-Salmón, H., 425
Ahn, S.J., 474
Akiba, Y., 370
Allen, P.J., 437
Amelio, D., 10
Amitai, O., 165
Anderson, W.G., 437
Ando, H., 353
Antenucci, C.D., 298
Antwis, R.E., 184
Arellano, C., 347
Arjona, F.J., 417

Babonis, L.S., 535
Barboza, P., 151
Barrow, L., 289
Barry, T., 323
Barth, C.C., 437
Bastías, D.A., 389
Bayarri, M.J., 37
Beckman, B.S., 70
Benga, G., 105
Benítez-King, G., 486
Bícego, K.C., 204
Biga, P.R., 465
Booth, M.A., 110
Borst, D., 323
Bozinovic, F., 389, 502
Browne, R.K., 184
Bruch, R.M., 437

Calduch-Giner, J.A., 197
Campbell, H.A., 224
Canals, M., 502
Cao, H., 127
Cao, J., 84
Cardenete, G., 157
Carnio, E.C., 204
Catalá, A., 409
Cavieres, G., 502
Chapman, B.E., 105
Chew, S.F., 360
Chiken, S., 333
Chung, J.K., 474
Claireaux, G., 233
Clauss, M., 151
Clauss, M., 376
Cockrem, J.F., 211
Colacino, J.M., 570
Coleman, J.C., 508
Coleone, A.C., 204
Collins, W., 151
Coney, A.M., 514
Cooper, C.E., 92
Cope, W.G., 347
Cramp, R.L., 557
Croll, R.P., 425
Cureton, E., 437
Czesny, S., 255

Dabrowski, K., 255
Davies, C., 289
Davis, L.K., 249
Degani, G., 241
del Río, M.P.M., 417
DeVries, A.L., 564
Dickens, M.J., 493
Ding, X., 323
Dodson, M.V., 308
Doi, Y., 142
Dorough, C.P., 541
Downs, C.T., 508
Duffy, L., 315
Dunphy, B.J., 56
Dupont-Prinet, A., 233

Egginton, S., 514
Eom, J., 61
Evans, D.H., 535

Figueroa, Y.G., 70
Folguera, G., 389
Fox, B.K., 249
Franklin, C.E., 557
Fritz, J., 376
Fuentes-Pardo, B., 486
Furlan, R.L., 204
Furriel, R.P.M., 44
Furuse, M., 216

García-Alcázar, A., 157
Garçon, D.P., 44
Gargaglioni, L.H., 204
Garofalo, F., 10
Gothilf, Y., 241
Grau, E.G., 249, 541
Gui, J.-F., 127
Günther, D., 151
Gutiérrez, A.M., 409
Guzmán, J.M., 37

Haim, A., 551
Harman, L., 289
Hasegawa, S., 353
Hathaway, M., 323
Hatle, J., 323
Hattendorf, B., 151
Hauton, D., 514
Hawkins, S.A., 119
Heah, T.P., 119
Henry, T.B., 119
Herichová, I., 78
Hidalgo, M.C., 157
Hiramatsu, N., 249
Hirano, T., 249
Holotta, M., 270
Hong, F., 323
Hopkins, W.A., 191
Horio, F., 216
Hulbert, A.J., 383
Hume, I.D., 1
Hummel, J., 151, 376
Hunt, B., 564
Hunt, L.H., 564
Hyndman, K.A., 535

Ip, Y.K., 360
Ishii, H., 370

Janssen, P.W.M., 1
Jaroszewska, M., 255
Je, J.E., 474
Jung, Y.R., 61

Kaeriyama, M., 142
Kaiya, H., 451
Kalinin, A.L., 224
Kamada, T., 370
Kaneko, T., 263
Kayes, S.M., 557
Khozin-Goldberg, I., 165
Kim, J.K., 474
Kim, M.-S., 474
Kim, N.Y., 474
Kitaguchi, K., 216
Kobayashi, M., 216
Kopp, R., 270
Kostelanetz, S., 493
Kuchel, P.W., 105
Kudo, H., 142
Kurokawa, M., 333
Kusumoto, K., 216
Kuwasawa, K., 333

Ladich, F., 341
Layton, A.C., 119
Lechner, I., 151
Lee, B.-J., 255
Lee, H.H., 474
Lee, H.-J., 394
Lee, K.M., 263

doi:10.1016/S1095-6433(09)01111-8

Lentle, R.G., 1
Leone, F.A., 44
Levy, G., 241
Li, C.-J., 127
Li, H., 135
Li, Q.F., 308
Li, S., 323
Li, X.B., 308
Lillywhite, H.B., 535
Lim, C., 249
Linton, S., 289
Liu, H.-y., 29
Liu, S., 135
López-Sánchez, J.A., 425
Luna, F., 298
Luo, Y., 547

Ma, Y., 315
Macari, M., 204
Madsen, T., 383
Maeda-Martínez, A.N., 425
Magnabosco, A., 173
Mañanós, E.L., 37
Mancera, J.M., 417
Mantelatto, F.L.M., 44
Masui, D.C., 44
McCue, M.D., 165
McKenzie, D.J., 233
McNamara, J.C., 44
McPherson, J.T., 119
McWilliams, S.R., 165
Megighian, A., 173
Mendonça, M.T., 401
Mendoza-Vargas, L., 486
Meyer, J., 465
Micheli-Campbell, M.A., 224
Millam, J.R., 279
Mishiro, K., 353
Mitchell, G., 523
Morales, A.E., 157
Mosca, S.M., 409
Motohashi, E., 353
Murai, A., 216

Nakanishi, Y., 216
Nash, T.R., 570
Nishimura, H., 429
Nunn, C., 376

Okuliarová, M., 530
Or-Chen, K., 551
Orlofske, S.A., 191

Pan, L.-q., 29
Pandolfo, T.J., 347
Park, D., 61
Park, N.G., 474
Peak, S.J., 437
Pellegrino, D., 10
Pérez-Jiménez, A., 157
Pérez-Sánchez, J., 197
Perissinotti, P.P., 298
Peron, S., 173
Pinshow, B., 165
Pirozzi, I., 110
Polakof, S., 417
Præbel, K., 564
Prem, C., 270
Prunet, P., 197

Quiniou, S.M.A., 451

Ramos, J., 37
Rantin, F.T., 224
Rasley, B., 315
Reboredo, G.R., 409
Rees, B.B., 70
Reggiani, C., 173
Riley Jr., L.G., 541
Rinchard, J., 255
Ripley, J.L., 98
Rochester, J.R., 279
Rogers, E.D., 119
Romero, L.M., 493
Ruiz-Feria, C.A., 429
Ruppert, E.E., 570

Sabat, P., 502
Saera-Vila, A., 197
Sarasquete, C., 37
Sato, K., 370
Sayler, G.S., 119
Scantlebury, M., 551
Schmidt, S., 92
Schulte, P.M., 70
Schwandt, S.E., 541
Schwerte, T., 270
Seo, J.S., 474
Shanas, U., 551
Shelby-Walker, J.A., 401
Shi, H., 135
Skinner, J.D., 523
Škrobánek, P., 530
Small, B.C., 451
Soengas, J.L., 417
Solís-Chagoyán, H., 486
Su, G., 429
Su, S.Y., 308
Sullivan, C.V., 249
Szántóová, K., 78

Thomason, D.B., 429
Tng, Y.Y.M., 360
Torres, K.A.A., 204
Tota, B., 10
Toyomizu, M., 370
Trzeciak, P., 255
Tsai, T.-S., 394
Tu, M.-C., 394

Ueda, H., 142
Ujvari, B., 383

Vargas-Chacoff, L., 417
Veloso, C., 502

Walker, A.P., 541
Wall, J.P., 211
Wallman, J.F., 383
Wang, H.W., 308
Wang, L., 135
Wang, N., 135
Wang, Y., 135
Ward, C.K., 401
Watanabe, S., 263
Webb, M.A.H., 437
Wee, N.L.J., 360
Wei, Q.-W., 127
Wells, R.M.G., 56
Whelan, M., 383
White, J., 429
Wiese, T.E., 70
Wilczyńska, B., 255
Wilson, J.M., 360
Withers, P.C., 92
Wood, H., 323
Wu, S., 315
Wysocki, L.E., 341

Xie, X., 547
Xie, Z., 308

Yanagie, R., 263
Yang, Y., 429
Yaqoob, N., 270
Yonemura, T., 370

Zeman, M., 78, 530
Zenuto, R., 298
Zhang, Y., 127
Zhao, Z.-J., 84
Zheng, D.-b., 29
Zhou, L., 127
Zohar, Y., 37
Zordan, M.A., 173